

Edexcel GCE

Applied Information and Communication Technology

Unit 3: The Knowledge Worker

January 2012

Scenario

Paper Reference

6953/01

The scenario should be distributed to candidates at least three working weeks before the examination.

Practice files: AHHLImport_practice.txt, Sasha Blue_practice.xls

This scenario should be used for the purposes of preparing candidates for the examination. This copy **must not** be taken into the examination. The information contained in the scenario will be included in the examination paper.

Further details are in the Instructions of the Conduct of Examinations (ICE), available from the Edexcel website for this qualification.

Edexcel will not accept any request for special consideration should candidates be given the incorrect scenario for the examination they are sitting.

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Scenario

Sasha Blue Skies

Sasha Bluett worked in Human Resources for a large manufacturing company.

She was made redundant at the age of 35. With a reasonable amount of savings plus a generous redundancy settlement, she felt ready for a new challenge.

Already the owner of a holiday home in the south of France, Sasha used her redundancy settlement to buy a second property in the same area. Her idea was to generate an income by renting both properties as holiday villas.

Sasha spent three months working on the two properties to bring them up to the appropriate standard. For each property, she organised people to clean the house and look after the garden. One of the properties had a pool, so she arranged for someone to clean it throughout the holiday season. She set up direct debits to pay the utility bills (gas, water and electricity).

Initial rents were £600 per week for the property with a pool and £500 per week for the other property. She found that, at these rents, both properties were fully booked for both the peak season (July and August) and the off peak season (April, May, June, September and October).

Over the next few years, Sasha bought eight more properties in the south of France. Some of the properties were close enough to the Pyrenees to be rented to skiers. The skiing season is from November to February. She was also able to rent out all of her properties over the Christmas holidays.

Major maintenance of the properties occurs during the off season.

Sasha's business was so successful that, for tax and other reasons, she decided to form a limited company. She called the company 'Sasha Blue Skies' and affiliated it to the 'Association of Holiday Home Letting' (AHHL). In addition to support and information, the AHHL provides a company's customers with protection should the business fail. Having this protection meant that even more people were prepared to book properties with 'Sasha Blue Skies'. 'Sasha Blue Skies' properties can now be booked via the AHHL website.

The AHHL provided a consultant to inspect the company and recommend improvements. The consultant advised a review of the charging policy as some properties were under-priced and others over-priced.

The AHHL provides formulae to help affiliated companies to calculate the rental value of their properties. The formulae rate each property using a points system.

The AHHL publishes a table every year. This table holds two series of values. The first series shows estimated maximum rents that should lead to a property being occupied 100% of a season. The second series shows estimated maximum rents that should lead to a property being occupied 80% of a season. There are four seasons: Summer Peak, Off Peak, Ski Peak and Christmas.

Armed with this information, Sasha started to work out a model to set the rental price of each property. She aimed to set a price to maximise the profit from each property. Unfortunately, due to pressure of work, she has not been able to complete the model.

Description of the model

Worksheet	Description
Rental Setting	In this worksheet you enter your suggested rental price for each property in each season. It will show the revenue, costs and profit for each property and will also show totals for all properties.
Costs	This worksheet will show the costs, broken down for each property. These will be fixed costs (those which occur no matter how many weeks the properties are rented) and variable costs (those which vary depending on how much the properties are used). These values are based on the previous year's costs for each property.
Revenue	The revenue worksheet calculates the revenue made by each property at the rent you set.
Season Weeks	This calculates the number of weeks that each property is available during each season
Ratings	This worksheet is based on the formulae provided by the AHHL and shows the ratings for each property during all four seasons.
SP Calc, OP Calc, SK Calc and CH Calc	These worksheets calculate the percentage use of each property at particular rents. There is one worksheet for each season. They are based on the values given annually by the AHHL.
AHHL	This worksheet will contain the values provided by the AHHL.

Some cells in the model are password protected. Should you wish to experiment with the model, the password is *edexcel*. Be aware that if you change the contents of any protected cell the model may not work.

Edexcel GCE

Applied Information and Communication Technology Unit 3: The Knowledge Worker

9–13 January 2012

Time: 2 hours 30 minutes

Paper Reference

6953/01

You must have:

Cover sheet, short treasury tag, AHHLimport_exam.txt,
Sasha Blue_exam.xls

Instructions

- Complete your candidate details on the cover sheet provided.
- All printouts must contain your name, candidate number, centre number and activity number.
- At the end of the examination:
All printouts should be placed in the correct order.
Use a treasury tag to attach your printouts (**as shown**) to page 2 of the cover sheet.

Information

- There are **five** activities in this examination totalling 88 marks. **2** further marks are allocated to Standard Ways of Working.
- The marks for **each** question, within an activity, are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed
– *you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.*

Advice

- Read through the Scenario carefully.
- Work through the activities in order.
- Attempt **ALL** activities.
- Label your printouts clearly as instructed.
- Printing must be undertaken within the examination time.

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Scenario

Sasha Blue Skies

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Season Weeks	This calculates the number of weeks that each property is available during each season
Ratings	This worksheet is based on the formulae provided by the AHHL and shows the ratings for each property during all four seasons.
SP Calc, OP Calc, SK Calc and CH Calc	These worksheets calculate the percentage use of each property at particular rents. There is one worksheet for each season. They are based on the values given annually by the AHHL.
AHHL	This worksheet will contain the values provided by the AHHL.

Some cells in the model are password protected. Should you wish to experiment with the model, the password is *edexcel*. Be aware that if you change the contents of any protected cell the model may not work.

Your Task

You have been employed by 'Sasha Blue Skies' to complete the model and to recommend rental prices for each property during each of the four seasons.

The Data

The 100% and 80% values from the AHHL are provided in the text file

AHHLimport_exam.txt

Instructions to Candidates

All printouts **must** have a header and a footer. The header must contain the activity number. The footer must contain your name, candidate number and centre number.

Minimum font size of 10 should be used throughout.

All spreadsheet printouts should show gridlines and row and column headers.

For some of your spreadsheet printouts you may need to adjust column widths to show the entire formulae. To do this you will need to unprotect the worksheets. The password is *edexcel*.

Activity 1 – Understanding the situation (suggested time 20 minutes)

You should look at all the information available and make sure that you understand the situation.

On **one** sheet of A4 summarise the current situation.

(a) List the key facts relevant to the problem you have to solve. (11)

(b) Outline the decisions you have to make. (3)

Note: Bullet pointed answers are acceptable.

Save and print your work.

(Total for Activity 1 = 14 marks)

Activity 2 – Sources of information (suggested time 20 minutes)

The AHHL provides formulae to help affiliated companies to calculate the rental value of properties at different times of the year. The formulae rate each property using a points system.

The points system currently takes these factors into account:

- size of property (number of bedrooms, maximum number of occupants, number of bathrooms, number of reception rooms)
- size and quality of pool
- location (quality of views, proximity of places of interest)
- ease of access to the coast (sea)
- ease of access to winter sports.

(a) State **four** other factors that the AHHL did not or could not take into account and explain how these could affect bookings. (8)

The model uses values for the utility and maintenance costs based on those from previous years.

(b) Describe **three** situations that could make these values inaccurate and explain the impact these might have. (6)

Save and print your work.

(Total for Activity 2 = 14 marks)

Activity 3 – Computer modelling (suggested time 45 minutes)

You should ensure that each printout is on **one** sheet of A4 only.

The model is stored as **Sasha Blue_exam.xls**

Open the spreadsheet model and familiarise yourself with it.

(a) Importing Data

- Create and name a worksheet to hold imported data from AHHLimport_exam.txt
- Import data from the text file (AHHLimport_exam.txt) into your newly created worksheet. Start importing the data into cell A1.
- Print off columns A – L and rows 1 – 14 of this worksheet showing **data**. Remember to show gridlines and row and column headers.

(2)

(b) AHHL

- Enter formulae into the white cells of the 'AHHL' worksheet to copy the correct information from your newly created worksheet.
- Print off columns A – E and rows 7 – 20 of the 'AHHL' worksheet showing **formulae**.

(2)

(c) Ratings

- The 'Location Overall' column in the 'Ratings' worksheet (K9 – K18) is calculated by taking the average of the 'Location Views' (column I) and the 'Location Places' (column J). Enter suitable formulae into columns K9 – K18 to calculate this average.
- The 'Off Peak' rating column in the 'Ratings' worksheet (O9 – O18) is calculated by adding the 'Villa Overall' (column G) to the 'Pool Size' (column H) rating and the 'Location Overall' (column K) and then adding four times the 'Sea' (column L) rating. Enter suitable formulae into columns O9 – O18 to calculate this value.
- The 'Ski Peak' rating column in the 'Ratings' worksheet (P9 – P18) is calculated by multiplying twice the 'Winter Sports' (column M) rating by the 'Villa Overall' (column G) rating.
- Print off columns K – P and rows 9 – 18 of the 'Ratings' worksheet showing **formulae**.

(8)

(d) **Season Weeks**

The 'Season Weeks' worksheet contains a row labelled 'Available Weeks' (row 19). This is the number of weeks, in each season (Summer Peak, Off Peak, Ski Peak, Christmas), that the properties can be booked.

There is space for a formula against each property for each season (B8:E17).

If the rating of a property for a season is non-zero the cell should contain the number of weeks in that season (row 19), otherwise the cell should contain zero.

- Enter suitable formulae against each property for each season (B8:E17).
- Print off columns A, B and D **only** and rows 7 – 18 of the 'Season Weeks' worksheet showing **formulae**.

(8)

(e) **Revenue**

- Enter a formula into cell F8 of the 'Revenue' worksheet to calculate the total revenue from property 1.
- Replicate this formula down to cell F17.
- Enter a formula into cell F18 of the 'Revenue' worksheet to calculate the total revenue from all properties.
- Print off column F and rows 7 – 18 of the 'Revenue' worksheet showing **formulae**.

(4)

(f) **Rental Setting**

- Use the model to set the rental price for each house during each season.
- With your solution showing, print off columns A – H and rows 7 – 18 of the 'Rental Setting' worksheet showing **data**.

(5)

(g) **Printouts**

- Collect your printouts together. Ensure you have printed them correctly and that they are in the order you have been asked to print them.

(7)

(Total for Activity = 36 marks)

Activity 4 – Report (suggested time 40 minutes)

*a) Write a report for Sasha Bluett of 'Sasha Blue Skies', recommending what rent should be charged for each property, for each season.

The report should include:

- a suitable title
- an introduction explaining what the report is about
- the recommended rents for each property for each season
- a justification for these recommendations
- a chart showing the total revenue, cost and profit for each property
- factors that might impact on the profitability of the company
- a concluding statement.

Proof read your report.

Marks will be awarded for the Quality of your Written Communication (QWC).

(15)

Save and print your work.

(b) Produce an appendix to your report.

The appendix should include:

- a screenshot of the entire 'Rental Setting' worksheet showing data and displaying your proposed solution
- a brief description of the strategy you used to achieve maximum profit.

(3)

Save and print your work.

(Total for Activity 4 = 18 marks)

Activity 5 – Evaluation (suggested time 10 minutes)

Write an evaluation of the model considering:

- how well you thought it performed
- what else you would like it to do and how you would achieve it.

Save and print your work.

(Total for Activity 5 = 6 marks)

Standard Ways of Working.

All printouts must contain the activity number, your name, candidate number and centre number.

Pages must be securely fastened to the cover sheet and in the correct order.

Minimum font size of 10 should be used for all word processed documents.

(Standard Ways of Working = 2 marks)

TOTAL FOR PAPER = 90 MARKS

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